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# The Problem of Incentives and Output<sup>1</sup>

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IT is a fair assumption in all discussion of incentives to work that admitting, as we must, the need of maximum productivity at the present hour, we also admit that the results and benefits of increased production should accrue to all groups of industry and the community. Those of us who have been longest in the field of personnel administration are increasingly impressed with the professional quality and status of personnel work. We are not merely underlings hired to keep factories full of workers; we are, or should be, competent executives imbued with professional standards which suggest that our work is successful to the extent that we are servants not only of a corporation, but also of the community. For the essence of this professional status, I take it, is a sense of high ethical obligation to conform to standards of sound procedure, just conduct and public service, to the extent that we have come to see the light on these matters.

I say all of this by way of preface because from the start personnel and other executives should realize clearly that they have no interest in exploiting

the human nature of the manual workers under them. They have, as professional managers, only an interest, and a very deep interest, in having work done well, quickly and in abundance. We want to see the necessary maximum production obtained with the minimum of effort and friction.

One thing which is increasingly plain today is that there is unnecessary effort and needless friction, both human and mechanical, where there is no interest.

Indeed, the text of today's discussion is that the roots of efficiency are two: namely, perfection of mechanism and process, and application of human energy in the most effective way. We know today that the most effective way of applying human energy, is to have people voluntarily eager and absorbed in what they are doing—in short, interested.

If, then, interest in work is one of the essentials to fundamental efficiency, it is important to carefully analyze the elements of interest, that we may understand what practical provision should be made for arousing it.

## DEFINITION OF INTEREST

People are interested when an activity tends to keep occupying their attention and absorbing them by some appeal. The appeal may lie in the very difficulty of the task or in the downright enjoyment in its perform-

<sup>1</sup>Read before the National Association of Employment Managers, New York, February 28, 1920.

For fuller treatment of the same subject see Chapter XV, "Arousing Interest in Work," in Tead and Metcalf *Personnel Administration: Its Principles and Practice*. McGraw-Hill Book Company, 1920.

ance, or it may be in the anticipated approbation of one's associates, due to one's proficiency. People are interested when attention has passed the point of conscious effort, and has become eager, immediate and spontaneous. Attention can be so commanded when we are actively engaged—have a definite object in view and recognize something at stake, "something whose outcome is important for the individual." A display of interest is therefore a display of "self-expressive activity."

*Elements of Interest in Work.*—The essential elements of interest in work seem to be: (1) self-choice of the activity; (2) pleasure in its continuance; (3) a sense of significance and value in its performance; (4) opportunity to secure the approval of one's associates for one's accomplishments.

A condition of monotony exists where these elements are lacking. Remove the chance for self-choice of the action, for understanding its significance, for having the approval of one's fellows, and the labor is sheer drudgery. "Monotony means that growth and development have ceased."<sup>2</sup> Monotony is present when work has become so habitual as to be automatic, that is, when it is making no demands upon the active attention; or when work is found to be temperamentally uncongenial, and is thus, for any reason, precluding the chance for self-expression and development through the work.

*Reaction of the Worker to His Work.*—If these definitions are correct, interest and monotony are not characteristics

of certain kinds of work. They are characteristics of people in their reaction to certain kinds of work. A job is not inherently interesting nor inherently monotonous. It is interesting or monotonous *to a worker*. There are inevitably these two aspects contributing to create the one fact of the worker in-his-relation-to-his-work. In each separate case the two must fit; the worker must find the job that satisfies him. He must be able to register there; and in order for this to happen it must fit from the point of view of opportunity *for him*, in relation to his capacity, motives and desires. It is, in short, a dynamic and changing fact. The worker is either progressively more interested because the adjustment is always improving, or he is progressively less interested, and usually less capable of being interested in the work.<sup>3</sup>

Jobs, as jobs, are therefore neither interesting nor the opposite. It all depends on the relationship. But there are, of course, jobs which because of their simple content do quickly become habitual and are then automatic. Any prolonged performance of such jobs will, of course, become monotonous; and whether, as now constituted, they can of themselves be interesting is, in our opinion, a grave question. The possibility of developing a derived interest for this type of work must be considered. But there are many jobs usually thought of as monotonous, which require thought, care and attention, and could therefore be much more interesting than they are, if only the worker

<sup>2</sup>Dewey, John. *Interest and Effort in Education*, p. 36.

<sup>3</sup>See *A Point of View in the Field of Industrial Personnel*, The Scott Co., Laboratory, June 24, 1919.

had the knowledge, ability, aptitude and background, out of which interest would normally arise.<sup>4</sup>

#### JOB ANALYSIS

This points to a fundamental need: the need for analysis of the *intellectual content of jobs*. From the point of wise selection of workers, promotion, transfer, modifications in process and training, we need more exact data as to what qualities, aptitudes, traits of temperament and technical knowledge each job demands. Such study we can confidently predict from all the job analysis which has thus far been done, reveals an astonishing amount of special skill required at many supposedly monotonous tasks.

Such study will, moreover, tell us how many jobs of each different kind there are in a factory. We know that it is inaccurate to speak of all factory work as repetitive drudgery. The work of machine maintenance occupies some workers. The handling of

materials and trucking occupies others. There is assembling, inspection, packing, shipping. The actual proportion of unskilled machine-feeders varies from plant to plant, but apparently it runs between 40 per cent and 80 per cent. We must not ignore the fact, however, that the elements of insecurity in the job, non-control over work, little significance in the work, little chance for fellow workers' approval, may all be present at repetitive and non-repetitive jobs alike, and that monotony exists wherever the chance to make the job one with one's self is no longer present.

#### CAUSES FOR LACK OF INTEREST AMONG WORKERS

I should like next to consider why it is that, at present, we have so little interest in work among the rank and file—a fact to which both workers and managers have widely testified. This is, in a sense, a negative point because it further delays consideration of practical suggestions for getting interest, but since the rest of the day is devoted to the technique of this subject, it is valuable to spend enough time on the introduction to get a really sympathetic understanding of the causes of the present condition.

It is plain, from what we have said, that when interest is present there is a pleasant condition of mental stimulation, alertness and responsiveness in the individual. But certainly mental stimulation, alertness and responsiveness are not the qualities which the ordinary manager conceives as being present in the rank and file.

*Fear.*—In this connection I wonder if it is generally realized what a determining part fear has played in

<sup>4</sup> An interesting illustration of this is given by F. H. Selden, "A Just Standard of Industrial Intelligence," in *American Journal of Sociology*, May, 1919, p. 646. "Usually, only cheap help was employed at this machine, as the foreman prided himself on getting work out at a minimum of expense. The regular hand quit and it was necessary to put another man in his place. The new operator looked the machine over, fixed it up, and decided to run it on a faster speed. To do this he must watch it very closely. . . . This necessitated his keeping his ear close to the cutter. Being a tall person this could be accomplished without undue fatigue only by sitting down. He got a nail keg and sat close to the machine, but as his ear was directed toward the cutter his eyes were apparently looking about the room. Only a day or so elapsed before the foreman called him down for his lazy tendencies in sitting at his work. This resulted in his putting his machine back on slow speed and assuming an attentive attitude."

shaping the mental life of manual workers. Fear is an emotion which gives rise to a strained, tense and abnormal state of both body and mind. The subject of fear, particularly if the fear is continuous, is balked and in a sense prohibited from the use of all his faculties. Whatever alertness or responsiveness the fearful person has is all in the direction of removing his fears, or of protecting himself from having them realized.

Of foremost importance to the worker is the fear of unemployment. The fear of losing one's job, either because business has become slack or because, through arbitrary exercise of authority, there may be an unfair discharge, is constantly present. As Whiting Williams says in his interesting article on "What the Workers Think," in *Colliers*, February 21, 1920, "give us this day our daily job," is the secret prayer of every worker, particularly if he has a family. There is fear that wages will not cover necessary expenses; fear of the undesired arrival of another child, or of sickness that will bring an emergency demand on income. There is also the fear of reprimand—the fear of being "bawled out" by the foreman. "I doubt," said Henry S. Dennison in a recent address at Richmond, Va., "if there is a man here who believes that he can make better progress in his factory by bellowing at his men and I doubt if there is a man here in whose plant there cannot be found some sample of the bellowing-bull type of foremanship."

There is the fear, sometimes conscious and sometimes not, that the reorganization of process and method, which is frequently taking place in

factories, means such a change in the method of doing the work that the worker's acquired skill will no longer have value. This applies particularly, of course, to the introduction of machinery, the incidence of which, as it falls upon the individual worker, may be temporarily unfair and cruel.

Then there is a fear, which has in the past unfortunately had all too good a basis in fact, that the more work the individual did the less return he would get for it because wage rates would be cut or orders would be more quickly completed and a lay-off would ensue.

*Unresponsiveness.*—In addition to this fact of fear as a cause of non-interest, there is the fact of a mental condition only to be understood in the light of the worker's early years—a condition of unresponsiveness and even seeming lack of ambition and capacity. This condition, I believe, is in nine cases out of ten a pathological condition. Such people are under-developed mentally, not because they are lacking in native capacity, but because there has been a persistent suppression of their natural mental responses. They are the victims of suppressed desires; and it is important to remember in this connection that psychologically the greater and the longer the repression to which the individual has been subject, the more difficult it is for his emotional life to thrive in a wholesome way.

Recent psychologists point to the importance in individual life of what they term "infantile fixations," by which they mean the influences which were of determining importance in shaping the mental life of the individual in his first five years. They even go so far as to say that the mental environment of those early years conditions

in a fundamental way the individual's possibilities during the rest of his life.

*The Immigrant Worker.*—We have, I believe, at least three groups among our manual workers to whom we can come with far greater insight and understanding than at present, if we understand the importance of this psychological truth.

In the ten years before the war there had been at least 10,000,000 immigrants into this country, the majority of whom came from central and southern Europe. This means that the early mental environment of that majority was vastly different from that which they found in their new surroundings. The civilization from which they came was an agricultural civilization. They were mostly peasants, often only one or two generations removed from serfdom. The influence of an autocratic state and autocratic church had reduced educational and cultural opportunities to a minimum; it was literally true that such people did not have a childhood in which the normal impulses were allowed satisfaction and adequate development. Because of that tireless vitality which characterizes the human race, they were, in fact, so dissatisfied with their restricted life that they broke through, and came to this country in an effort to secure release. In my judgment, this manifestation of initiative betokens a real stamina and a virility which our country needs; but even so, those people cannot make amends in their generation for the restrictions and mental and emotional impoverishment of their own childhood.

*The Tenement Child.*—We have a second group of workers which have grown

up in our large industrial cities. You should read Miss Jane Addams' fascinating account in the *Spirit of Youth in the City Streets*, to realize the consistent and dangerous manner in which our tenement life deprives children of the opportunity for normal releases. Their sense of adventure must come from such escapades as stealing fruit from street peddlers, stealing milk bottles, stealing rides on cars, and in each case trying to get the sense of the chase by eluding the policeman. Their experience of sex matters begins at an unduly early age because where a whole family occupies two or three rooms it is inevitable that this whole side of life should come conspicuously to a child's attention and arouse prematurely and abnormally impulses which need no artificial stimulus. Physically and emotionally, workers who grew up in our slums did not have the chance to be normally developed.

*The Company-Town Worker.*—And we have in our company owned mining communities and in our isolated textile towns a third group of children, whose childhood has all the characteristics of that of the slum children without the excitement of the city streets, but happily with the addition of green grass and trees, unless perchance, as in coal mining towns, the countryside has dried up under the withering blight of coal dust.

#### THE TASK OF STIMULATING THE WORKER'S INTEREST

I am not trying to overdraw the picture, but I hear so frequently the objection that people do not want to be interested in their work or that they like monotonous work, that I

want to stress the point that where managers find this to be the case, workers are usually responding sub-normally to an unwholesome situation. Normal people, I can assure you, do insist and will insist that the activities upon which they are to be engaged during the majority of their working hours shall engage their interest in real and permanent ways. Personnel executives have a very important and worthwhile obligation both to workers and managers in helping to effect a release of human energy, an out-flowing of natural human releases which will remove so far as possible these infantile limitations and these haunting fears of adult life.

Our task in securing interest in work is, in a word, the task of clearing the mental air in the life of thousands of individuals; the task of restoring people's self-confidence and self-respect to them; the task of calling out and summoning to new expression powers which the individuals themselves do not realize that they have. It is a fascinating study in group and individual psychology because we are going to find that different people and different groups will be stirred and moved to this release of creative power in a variety of ways.

William James puts the question and answer in a significant way. He asks "to what do the better men owe their escape; and, in the fluctuations which all men feel in their own degree of energizing, to what are the improvements due when they occur? In general terms the answer is plain: Either some unusual stimulus fills them with emotional excitement, or some unusual idea of necessity induces them to make an extra effort of will.

*Excitements, ideas, and efforts*, in a word, are what carry us over the dam."

If it is true that excitements, or emotional appeals, and ideas, or intellectual appeals, plus concentrations of effort or will, are what bring releases of energy, the problem today, as I see it, is to discuss what practical excitements and ideas are stimulating to interest in work. How, to put it differently, can we get opportunity for the individual in industry to have freedom of choice, pleasure in the work for its own sake, a sense of its significance and value and the opportunity to have the approval of one's fellows?

#### ROTATION OF WORKERS IN MONOTONOUS OCCUPATIONS

It seems to me that all the activities of the personnel department that have to do with intensive job study, that have to do with right selection and subsequent adaptation of the worker to his work, gain enormously in importance as soon as a plant decides to embark on a systematic program of making its work interesting; because all of these matters can help greatly to facilitate a freedom of choice and intelligent choice in work.

In this connection also, I am confident that plants are going to have to resort much more than they have recognized, to a systematic plan of transfers. We have as yet done hardly anything to compensate for the dullness of the most routine jobs by insisting that no worker shall be allowed to remain at them beyond a certain length of time. I appreciate that such a policy of transfer requires a change in the mental habits of both managers and workers, but it is a

change that looks in the direction of a better mental balance in the worker's life and ultimately, therefore, a more adequate release of his positive and active qualities. One of the watch-words of a campaign of getting interest in work is going to be: It pays to transfer.

*Instruction Program for Workers*

There are many types of jobs in which the worker will find pleasure in their performance simply because the activity itself is something which he craves. But we can only have pleasure in doing a thing for its own sake when we do it well. No one likes to do something for any length of time at which he is not proficient. This argues for the importance of a job instruction program in a scheme of securing interest. Managements owe it to their workers to put them at once into possession of all the available information about the best way to do the work that they have to do. Proficiency in itself is pleasurable. There is also pleasure in doing the work if, in the doing, some improvement can be made—some change in method of process which appeals to that sense of economy in the use of energy which is native to human nature. The contrivance of labor-saving devices is a pleasurable activity.

I am especially glad also to stress the place of the shop committee as a stimulus to production, because I believe that both in the direction of discussing and adopting improvements in process and in organizing the approval of one's fellow workers, the shop committee can have substantial value. Indeed, until the shop committee becomes a work or production

committee, it is only fulfilling a small part of its purpose.

*Standards of Output.*—It is of the very essence of interest in the work that the outcome of the negotiation about reward in relation to effort be clear and explicit as it is not today. At present we have no standards of a fair day's or week's output which have been formally agreed upon. We negotiate about pay; but not about the amount of work which is to take place in relation to that pay. I, for one, am convinced that study and negotiation about fair amounts of work, which is a proper subject for shop committee or collective bargain action, promises, when jointly done, to be one of the greatest spurs to interest. For it must inevitably develop out of such joint study and decision that all methods of technical procedure are considered and standards of fair amounts of output for workers of different degrees of skill are adopted; and thus another legitimate spur to proficiency will be provided.

In saying that a sense of significance or value in the thing done is an element in interest, we point to a truth which managers must discover anew and begin to apply afresh, namely, the close relation that exists between knowledge and action. We cannot be pleased with what we are doing and doing well unless we have some means of knowing that we are doing it well—knowing something of the results. There must be some measure of proficiency, and some publicity of it. One of the great values of the work that Robert B. Wolf has done on production records is that it acquaints both the individual with his own proficiency and also makes it possible at the same



time to compare his achievement with that of his co-workers.

Our activity also gains in momentum to the extent that we understand why it is that we are doing what we do; when we understand its meaning to us. A vital element in the worker's understanding of what he is doing is acquainting him with the relation of his process to the whole production and of indicating the use of the production to which he is contributing.

Mark Jones has a good story, in that connection, of a man visiting a plant where he found that the imagination of the office and executive organization had caught fire over the importance of a big order of pumps which were being made for an irrigating project in the Sahara desert. A sense of the significance of their work had aroused a new interest. But when in walking through the factory he got to the shipping room he asked one of the truckers who had some of the crated parts on his truck where the pumps were going, the worker shrugged his shoulders and said "they are going onto the freight car." That was as far as his knowledge of the transaction carried and he had, of course, as much interest in the work as that lack of knowledge should bring. I say that right down the line the workers have the right to the knowledge of the meaning and significance of what they are doing—its meaning to them in terms of accomplishment and reward, its meaning to the company in terms of volume and value of shipments, its meaning to society in terms of the use to which the product is to be put.

#### *Organized Approval of Fellow Workers*

Then, there is the importance of organizing the approval of one's fellow

associates; for the desire of all of us is to stand well in the eyes of those whose approval is of value. We want the emotional stimulus of sympathy; it helps to mobilize will and results in effective action. We have a sufficient body of experience now to say definitely that workers do find satisfaction in standing well in the eyes of their fellows, not alone in terms of comparative pay checks, but in terms of the quantity and quality of their work, in terms of the economy of their operations, in terms of their versatility—in short, in terms of their creative power. Moreover, it is a legitimate work of management to study how that sense of approval can be cultivated and organized in a plant.

There was, for example, an interesting experiment made at the Delco plant where they trained a dozen of the executives as guides and then routed the families of all the workers through the plant in small groups over a period of two or three months, in order that wives and mothers and children might see what it was that husbands, fathers and brothers were doing during the major part of their waking hours. It became clear that workers were proud to show how well they could work and the management claims that the production increased 5 per cent during these visits.

#### *Fair Treatment of the Wage Problem*

I cannot conclude this introductory discussion without making mention of the frequently heard comment that all the workers are interested in is the pay envelope. It goes without saying that unless wages are at the very least enough to provide a decent standard of living without anxiety, there cannot be interest in the work. Living wages

regularly paid are the first condition of casting out working class fear.

But after what I have said I hope it is clear that this idea of money as the sole incentive is an unwarranted over-simplification of human motives and human characteristics. The impulse to possession and the desire for increased financial return is indeed important, and it is legitimate. But there are other equally legitimate and important motives. The impulses to create and construct, to satisfy one's curiosity, to satisfy one's desire for the approval of others and one's sense of significance in work, are all legitimate parts of the human equipment and they demand satisfaction.

Industry has worked too long on the basis that all the workers want is wages. The thing to do now is to supply an incentive in the work itself, as well as in the rewards accruing out of the work. Admittedly, the non-financial incentives so-called, might be used to exploit the workers. But any discussion of the methods of interesting workers pre-supposes, as I have said, that the management has a disposition to treat the payment problem with reasonable intelligence and fairness.

#### *Limitation Upon Interest*

I want, in conclusion, to revert to the point at which we started in saying that our interest in securing legitimate incentives to work is a professional one. I think, if we are honest with ourselves, we have to realize that under existing conditions where the guiding motive in the conduct of so many factories is the amount of profit that can be extracted from the operation by the owners, we cannot expect to see the workers become unreservedly

and unqualifiedly interested. We can and we should do everything possible, but we cannot do all, to get interest so long as the motive of profit-making is dominant in the industrial structure. It would seem to be almost axiomatic that as between that plant where all possible profits were taken and one which publicly announced a policy of limited returns to capital, the degree of interest which it would be possible to arouse would, in the latter case, be substantially greater.

Indeed, I hope the time will come when personnel executives will publicly profess as keen an insight into fundamentals as those prominent consulting engineers, including such men as Harrington Emerson, Gantt, Scovell, Polakov, Knoeppel and others, when they submitted a memorandum to the President's Industrial Conference last fall, declaring that the "policy of extracting profit rather than rendering service has wasted enormous stores of men and natural resources and has put in places of authority those who seek selfish advantage regardless of the interest of the community."

The important reason why this policy of extracting profit has wasted human resources is that it has worked effectively to thwart and obstruct the release and free play of the constructive capacities of the workers because of insecurity of work, meager wages and no effort to wed knowledge to action.

As professional people, what we are interested in is an economic organization of our country and of our plants for use and service; and to get this we must secure everybody's interest in the work in every individual plant; to get this we must, to use a fine new

phrase, extend the stirring and appealing conception of each industry "as a great self-governing democracy of organized public service."<sup>5</sup>

You and I, with our professional interest in seeing a good job well done, must therefore do all in our power to make the factory a place where work can be a means of self-expression, where the worker can have reasonable freedom in choosing what he would like to do and can do well, where he can have a sense of its significance and

can secure the approval of his fellows. And where, of course, his return for the increase in output is in some measure commensurate with the increased return to the business as a whole.

And I, for one, am willing to admit that if we cannot or do not reorganize factories so that some approach to these several conditions is possible, then society will have to choose between the survival of factories and the survival of human souls. I have faith, however, that the two—machinery and personality—can continue not only to survive together but actually to flourish together!

<sup>5</sup> See the brilliant document published by the Garton Foundation in London, *The Industrial Council for the Building Industry*, 1919.